

What is claimed is:

1. A bed siderail support assembly, comprising:  
a frame;

a support deck mounted on said frame and having an upwardly facing side and a downwardly facing side, said support deck having a head end, a foot end and opposite lateral edges extending between said head end and said foot end;

at least one siderail oriented along side of at least one of said lateral edges;

a connecting mechanism configured to connect said at least one siderail to one of said frame and said downwardly facing side of said support deck, said connecting mechanism including:

a support configured for securement of said one of said frame and said support deck;

an elongate toothed rack longitudinally movably mounted on said support;

a pair of parallel arms pivotally mounted on said support for movement about parallel axes of rotation lying in a plane that extends parallel to a longitudinal axis of said elongate toothed rack;

toothed pinion gears on each arm each supported for movement with a respective arm about a respective said axis of rotation of said respective arm, the teeth of each said toothed pinion gear meshing with the teeth on said rack; and

a mount pivotally secured to each of said arms at a location radially spaced from said axes of rotation, said mount being configured to support thereon a bed siderail.

2. The bed siderail support assembly according to Claim 1, wherein said parallel arms each have a longitudinal axis and are configured to pivot between a first position whereat said longitudinal axes thereof are parallel to said longitudinal axis of said toothed rack and a second position whereat said longitudinal axes thereof form an angle with said longitudinal axis of said toothed rack, said toothed rack being configured to move lengthwise in response to pivotal movement of said arms so as to assure that said arms will always be parallel to each other.

3. The bed siderail support assembly according to Claim 2, wherein said support is oriented laterally from said at least one lateral edge and beneath said support deck, said mount being positioned in a first position beneath said deck when said arms are in said first position and being positioned in a second position laterally outside said at least one lateral edge when said arms are in said second position.

4. The bed siderail support assembly according to Claim 3, wherein said support is secured to and suspended by a spacer mechanism a finite distance from said downwardly facing side of said support deck, said support including two pairs of fixed stops limiting the pivotal movement of said arms therebetween, said arms being oriented between said support and said downwardly facing side of said support deck.

5. The bed siderail support assembly according to Claim 4, wherein said toothed rack is guided for said longitudinal movement between one of said fixed stops in each pair and one spacer mechanism on said support.

6. The bed siderail support assembly according to Claim 1, wherein said mount is pivotally secured to each arm about an axis contained in a vertical plane extending parallel to said longitudinal axis of said elongate toothed rack.

7. The bed siderail support assembly according to Claim 6, wherein said mount includes a pair of secondary arms pivotally secured thereto at one end and being supported for movement about a first axis contained in a first horizontal plane, and a support plate pivotally secured to a distal end of each secondary arm and for relative movement about a second axis contained in a second horizontal plane, said support plate being configured to support said bed siderail thereon.

8. The bed siderail support assembly according to Claim 7, wherein said support plate includes a releasable latch mechanism configured to lock said support plate to at least one of said secondary arms so as to prevent relative movement therebetween.

9. The bed siderail support assembly according to Claim 8, wherein said latch mechanism includes a movable pawl mounted on said support plate and a spring mechanism continually urging said pawl to a first position thereof and a rotatably mounted wheel-like member mounted on one of said secondary arms and having at least one pocket on a peripheral surface thereof, said pawl slidably engaging said peripheral surface until said pawl is directly aligned with said pocket at which time said spring mechanism urges said pawl into said pocket to effect said lock of said support plate to at least one of said secondary arms.

10. The bed siderail support assembly according to Claim 9, wherein said movable pawl is a lever arm pivotally supported for movement about a first of said second axes and said wheel-like member is fixed to said distal end of said secondary arm and is movable about a second of said second axes.

11. The bed siderail support assembly according to Claim 10, wherein said lever arm includes a manually engageable handle configured to cause said pawl to exit said pocket in response to a manual force applied to said handle.

12. The bed siderail support assembly according to Claim 11, wherein said handle is oriented directly beneath said pawl.

13. The bed siderail support assembly according to Claim 7, wherein each secondary arm includes fixedly secured thereto a further arm extending parallel to each other and a link mechanism pivotally secured to a distal end of each further arm.

14. The bed siderail support assembly according to Claim 13, wherein said link mechanism includes a link and a spring mechanism interconnecting said link and said mount.

15. The bed siderail support assembly according to Claim 14, wherein said spring mechanism is configured to counterbalance a combed weight of at least said mount, said secondary arms and a bed siderail secured to said mount.